Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



Rural Lines

December 1954

Electrification Section



Page

What Your State Is Doing in Power Use	3
REA Leaders Discuss Atomic Energy	9
Power Use Program Doubles KWH Sales	14
Your Statewide Can Spot Market	16

Telephone Section



washington Company Cites Progress	19
Florida Gets Top Loan	21
Northwestern Bell Announces EAS Terms	21
Getting Out a Telephone Directory	22
Hurricane Hazel Brings Offer of Help	22

Administrator's Message, 2; Power Use Exchange, 12-13; The Lineman, 17; Pioneer, 18; Recent Loans, 24.



A Message from the

ADMINISTRATOR

Dear REA Friend:

I keep running into people who are concerned because they say that REA has cut down on "services" to the electric cooperatives. They say this in such a way as to suggest that we are unjustly depriving people of something to which they are really entitled.

We ought to stop for just a minute and see what we are talking about. What the activities REA has cut out are those that most co-ops have preferred to handle anyway. These are jobs most businesses do for themselves, particularly when they get up into the one-two-and three-million dollar size like so many electric co-ops. For example, there's the free auditing that REA used to provide but which has been diminished by degrees for many years. Another service largely discontinued is help in preparing loan applications. Another is free engineering assistance. At one time this was not available readily from sources other than REA but now it is and co-ops are using such sources and more.

In the early days, of course, REA services were most necessary. They helped get the program rolling. But to start from that point and go on and argue that the government should keep on providing these services indefinitely is a mistake. In my estimation, the person who says that misses one of the major lessons of the rural electrification program—that the cooperatives have grown up and can do so many things for themselves.

Back home in my own co-op, our board nearly always felt that their own business administration should not be interferred with. We preferred to assume our own responsibilities and I think most co-ops are of the same opinion.

It is wonderful that this should be so, and I believe the founding fathers of the rural electrification movement would feel the same way. That is why it always concerns me a little when people complain about "curtailment of REA services." They ought to be proud as punch that borrowers are doing their job so well that REA can afford to cut down a little bit on its activities.

Aniker Welsen

Administrator.

Issued monthly by the Rural Electrification Administration, U. S. Department of Agriculture, Washington 25, D. C. Subscribe to this publication from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price, \$1.50 a year; foreign, \$2 a year; single copies, 15 cents. Printing of this publication has been approved by the Director of the Bureau of the Budget, January 25, 1954.
Vol. 1, No. 7.

Plans Drafted for Local Action On Power Use

Steps have now been taken in all States for participation in the rural power use program of the Inter-Industry Farm Electric Utilization Council.

State plans were drafted at a series of 5 meetings held throughout the nation and attended by more than 2,000 representatives of power suppliers and related industries. Delegates represented electric cooperatives, electric companies, manufacturers of electric farm equipment and appliances, wiring contractors, farm and educational groups, and agricultural extension services.

The first meeting was held in St. Paul, Minn., on September 21. Others followed in Denver, Colo., September 28; Columbus, Ohio, October 12; Fort Worth, Texas, October 15, and Nashville, Tenn., on October 20.

Council members are: J. K. Smith, Kentucky Association of Rural Electric Cooperatives, and Oliver Kimbrough, Farmers Electric Cooperative, Clovis, N. M.—representing rural electric cooperatives; R. W. McClure, vice president, Kansas Power and Light Company, and C. V. Sorenson, vice president and general manager, Indiana and Michigan Electric Company-representing electric companies; W. E. Saylor, Kelvinator Division, American Motors Corp., and Walter D. Hemker, Westinghouse Electric Corp.-representing the electric manufacturing industry through the National Electrical Manufacturers Association; Russell Gingles, NEMA, as Secretary, and Fred H. Strong, Deputy Administrator of REA, as Chairman. The latter two serve in a non-voting capacity.

Following are summaries of action taken by each of the States:

ALABAMA: Steering committee appointed to organize State program. Committee consists of: Ed Wallace, Greenville, and Arie Berry, Guin, representing electric cooperatives; M. B. Penn, Birmingham, and J. F. Rixon, Montgomery, representing electric companies; Mark Wilson and F. F. Beauchamp, representing TVA; F. A. Kummer, Alabama Polytechnic Institute, Auburn; W. T. Cox, Extension Service, Auburn. Manufacturer and distributor representatives will be named later.

ARIZONA: Don Willis, Phoenix, representing power companies, was designated as liaison with the Inter-Industry Council, and an organization and planning meeting was scheduled in Phoenix.

ARKANSAS: Ross Mauney, Little Rock, representing power companies, will serve as contact man until a committee representing cooperatives, electric companies, equipment manufacturers, the state rural electric association, and extension service can be formed. This committee will draft a program for submission at a later statewide meeting of all elements of the industry.

CALIFORNIA-NEVADA: All major electric companies as well as electric cooperatives were represented. The group reported that plans for stepping up farm use of electric power could be worked into existing promotional activities. Spokesman for both States was E. G. Stahl, San Francisco, representing the electric companies.

COLORADO: Colorado groups formed a steering committee to set up a statewide promotional campaign. Those chosen were: W. L.



Pictured at the Denver planning session are, left to right, R. W. McClure, vice president, Kansas Power and Light Co., Lawrence, Kan.; Oliver Kimbrough, manager, Farmers Electric Cooperative, Clovis, N. M.; Fred H. Strong, Deputy Administrator, REA; and W. D. Hemker, Westinghouse Electric Corp., Pittsburgh, Pa.

Duncan, Denver, to represent manufacturers, suppliers and distributors; Arthur E. Gaines, Hugo, to represent rural electric cooperatives; P. E. Brookover, Denver, to represent electric companies; and O. J. Trenary, Extension Service, Fort Collins.

CONNECTICUT: Farm power use activities are carried on by the Connecticut Farm Electrification Council, an organization of agricultural groups and electric companies. The plan of action as outlined at Columbus will be presented to the State Council with the recommendation that it actively participate. Walter T. Ackerman is secretary of the Connecticut Farm Electrification Council, Hartford, and will serve as contact man with the Inter-Industry Council.

DELAWARE: R. R. Jefferson, Greenwood, representing cooperatives, will work to stimulate interest in the Inter-Industry Council program.

FLORIDA: Steering committee appointed to work out a tentative program and fix time and place for a statewide meeting. Committee consists of: Claude H. Smith, Ormond Beach, and W. W. Wolff, St. Petersburg, representing electric companies; Leon Weaver, Quincy, and

H. L. Johns, Live Oak, representing electric cooperatives; Cy Young, Tampa, William Christie, Jacksonville, and Harry Holtzclaw, Orlando, representing equipment industry; and A. M. Pettis, Gainsville, and Annie Mae Sikes, Tallahassee, Extension Service.

GEORGIA: Committee appointed, and requested to call a Statewide meeting to plan program. Committee composed of: John Taylor, Monroe, and Terry Gunn, Millen, representing electric cooperatives; C. M. Wallace, Atlanta, and A. H. Bruning, Valdosta, representing electric companies; Paul A. Crawford, Jr., Athens, representing Extension Service; Arthur Butts and John Nee, both of Atlanta, representing manufacturers and distributors.

IDAHO: William H. Knight, University of Idaho; Robert Hogg, Boise, representing electric companies; and P. E. Shane, Malta, representing electric cooperatives, will arrange a meeting to get the campaign under way.

ILLINOIS: Group agreed to carry on this work by expanding program of the Illinois Farm Electrification Council, organized 2 years ago and supported by all power suppliers in the state. Council leaders are: A. E. Becker, manager, Association of

Illinois Electric Cooperatives, and Dawson G. Womeldorff, representing electric companies, (co-chairmen); and Prof. E. W. Lehmann, University of Illinois.

INDIANA: The group named E. M. Tomlinson, Indianapolis, representing cooperatives, and H. A. Gettinger, Hammond, representing electric companies, to appoint a steering committee to promote the program in Indiana. The steering committee will be composed of 5 members each from electric companies, electric cooperatives, and electric manufacturers, plus a consultant from the Extension Service at Purdue University. The twoman committee planned a later meeting to get the program underway.

IOWA: Iowa Rural Electric Utilization Council formed, and committee named to perfect permanent organization. Committee consists of Prof. Hobart Beresford of Iowa State College, chairman; Carroll Worlan, assistant to the secretary of the Iowa Utilities Association; and Charles Aiken, educational director, Iowa Rural Electric Cooperative Association.

KANSAS: For the past 2 years Kansas has had a steering committee to represent rural electric cooperatives, electric companies and the Extension Service in planning a vocational agricultural program which included electric utilization. A special committee (made up of 2 representatives from electric companies and 2 from rural electric cooperatives) has been studying specific power use problems in farming areas during the last 6 months. These representatives are: Charles Ellis, Clay Center, and Perry Miller, Dodge City, for electric cooperatives, and H. S. Hinrichs, Topeka, and Fred M. Kimble, Wichita, for electric companies. It was decided to enlarge this committee to include manufacturers, dealers, distributors, and Extension Service.

KENTUCKY: Temporary committee named to lay plans for permanent organization and program in State. Committee members are: R. E.

Doyle, Ashland, and F. I. Fairman, Lexington, representing electric companies; Roy York, Lawrenceburg, and J. R. Miller, Owensboro, representing electric cooperatives; A. L. Pickens and R. D. Allen, both of Louisville, representing manufacturers and distributors; and 2 representatives to be named by College of Agriculture and Extension Service.

LOUISIANA: A. P. Wood, Natchitoches, was elected chairman of the interim committee to organize a power use council for the state.

MAINE: Appointment of a 2-man steering committee was recommended. Suggested appointees are Robert Clark of Calais, representing cooperatives, and Frank Bailey of Augusta, representing electric companies.

MARYLAND: A. V. Krewatch, Extension Agricultural Engineer, University of Maryland, College Park, was recommended as a one-man steering committee.

MASSACHUSETTS: F. L. Rimbach of Clinton will serve as a oneman steering committee.

MICHIGAN: This group approved the program as presented and voted that the Michigan Rural Electric Committee should take over its promotion and study the possibility of appointing permanent sub-committees to handle the program. The Michigan Rural Electric Committee is made up of 6 members—2 from electric companies, 2 from electric cooperatives and 2 from Michigan State College, including one extension man. Committee members include D. E. Wiant, agricultural engineer, and R. L. Maddex, rural electric extension specialist, Michigan State College, Lansing; P. R. Schepers, Jackson, and J. C. Cahill, Detroit, for electric companies; and H. E. Alverson, Adrian, and Vernor Smith, Portland, for electric cooperatives.

MINNESOTA: Program to be carried out by broadening activities of the North Central Electrical League of Minneapolis, which has been functioning effectively. Recommendations

of specific activities to be sent to A. H. Kessler, executive secretary of the League.

MISSISSIPPI: R. M. Shearer, Gulfport, representing electric companies, and H. H. Shattuck, Bay St. Louis, representing electric cooperatives, were designated to appoint a steering committee and call a meeting as soon as possible to launch a State program.

MISSOURI: Delegation voted to undertake an active inter-industry program, and named Julius Helm, Jefferson City, for the cooperatives, and D. A. Merrifield, St. Joseph, for the electric companies, as a temporary committee. A basic committee of 18, composed of 6 cooperative representatives, 6 electric company representatives, 1 electrical contractor, and 5 representatives of farm equipment manufacturers will be selected. Representatives of the state Extension Service, state association of rural electric cooperatives, and the Edison Electric Institute will be invited to serve as an advisory group.

MONTANA: A committee of three was named to develop a planning meeting: Max Mathews, Huntley, for rural electric cooperatives; D. J. McGonigle, Butte, for electric companies; and Eric Wilson, Extension Service.

NEBRASKA: The group planned a meeting to which manufacturers and suppliers of electrical equipment would be invited to develop a promotional pattern for the State. M. L. Mumgaard, Extension Service, was designated chairman of a committee to arrange this meeting. Working with him will be Charles A. Palmer, Dawson County Public Power District, Kearney, and Maurice Johnson, Consumers Public Power District, Columbus.

NEW HAMPSHIRE: The representatives decided to continue promotion of farm power use activities through the active New Hampshire Farm Electric Utilization Council.

E. E. Cotton, Plymouth, will represent electric cooperatives, and Walter A. Bodwell, Manchester, will represent electric companies. Recommendations for specific activities should be sent to Joseph H. Bodwell, vice president of the New Hampshire Farm Electric Utilization Council, 46 Congress Street, Portsmouth.

NEW JERSEY: This group voted

NEW JERSEY: This group voted to continue an active program through the Farm Electrification Council. It is composed of representatives from the New Jersey College of Agriculture, State Department of Agriculture, State Department of Education, Farm Bureau, the State Grange and the 4 major electric suppliers of the state. Fred W. Jackson, director, Division of Information, New Jersey State Department of Agriculture, is secretary-treasurer.

NEW MEXICO: Group elected a steering committee made up of H. L. Pinkerton, Albuquerque, and J. F. Maddox, Hobbs, representing electric companies; Paul Frost, Artesia, and Glenn M. Ezell, Portales, representing cooperatives; Mrs. Dorothy Y. Hanny, State College, representing Extension Service, and Charles Newbill, El Paso, Texas, representing equipment industry. James Gattens, Albuquerque, and Oliver Kimbrough, Clovis, will serve as advisers. The committee will plan an organizational meeting.

NEW YORK: Group reported an active program now being carried on through the New York State Farm Electrification Council, and suggested this as a vehicle for the new program.

NORTH CAROLINA: Representatives unanimously voted to start a program for the State using the industry-wide approach. Group elected a steering committee made up of two co-chairmen, pro tem: Gwyn Price, Raleigh, chairman, North Carolina Rural Electrification Authority, and J. C. Richert, Jr., also of Raleigh, representing power companies. Another representative from cooperatives, one from electric companies and two from distributors will be added.

NORTH DAKOTA: Steering committee selected to form an organization tentatively called the Power Use Council for North Dakota. R. G. Harens, executive manager, North Dakota Association of Rural Electric Cooperatives, designated as chairman pro tem. Steering committee requested to nominate Council members.

OHIO: The group voted to continue and expand activities of the Ohio Electrification Council, formed 3½ years ago. The Council is comprised of 9 electric companies, 17 rural cooperatives and representatives from the Extension Service of Ohio State University. Herbert K. Monroe, Paulding, is president. The group is considering employing a man to undertake promotional activities and invite electric manufacturers, distributors, contractors and other interested parties to participate in the program.

OKLAHOMA: Delegation selected a committee of 6 to meet with the secretary of the Oklahoma Rural Electric Advisory Council to discuss further plans for a power use program. Committee includes Billie Bryan, Binger, and Jack Gambrell, Hugo, cooperative representatives; D. J. Frandsen, Tulsa, and Earl W. Gray, Oklahoma City, representing electric companies; A. W. Fischer, Oklahoma City, and W. E. Elliott, Dallas, Texas, representing manu-

facturers and suppliers.

PENNSYLVANIA: The group formed a small committee to consist of 2 from the cooperatives, 2 from the electric companies and 2 from the distributors or manufacturers, to form an organization to encourage greater power use activity. Richard Orange, Indiana, and William C. Wenner, Cambridge Springs, will represent cooperatives; and Lou Singley, Pittsburgh, and Ray Smith, Reading, will represent electric companies. When the full committee is formed, it will draft plans for a basic organization.

RHODE ISLAND: William C. Hogg, Providence, representing power

companies, was recommended to head up the work of organizing a state committee.

SOUTH CAROLINA: Steering committee composed of G. H. Stewart, Extension Service, Clemson, chairman; Marvin T. Geddings, Spartanburg, representing electric companies; W. E. Gray, Charlotte, N. C., and G. L. Doak, Atlanta, Ga., representing manufacturers and distributors; T. M. Watson, Monks Corner, representing South Carolina Public Service Authority; Henry Faris, Laurens, and R. D. Bennett, Columbia, representing electric cooperatives.

SOUTH DAKOTA: Group decided to carry on an integrated load-building program through framework of the existing South Dakota Electrical Council. Committee members selected by the group were: Virgil H. Herriott, manager, Sioux Valley Empire Electric Association; Charles E. Jones, representing South Dakota Rural Electric Association; J. E. Stoddart, Jr., representing electric companies; Richard Byers, representing equipment distributors.

TENNESSEE: Group recommended that load development activities now being conducted through TVA, Tennessee Rural Electric Cooperative Association and Tennessee Valley Public Power Association be continued and tied in with activities of the Inter-Industry Council.

TEXAS: The group selected a temporary committee composed of: Osie Cauble, Corsicana, Chairman, and O. B. Bryan, Stanton, representing cooperatives; A. R. Watson, Amarillo, and J. L. Bates, Corpus Christi, representing electric companies; G. L. Ralston, and T. F. Barney, both of Dallas, representing manufacturers. Dr. George G. Gibson, College Station, director of the Texas Agricultural Extension Service, is assisting the committee. Committee members will canvass their particular segments of the industry to determine extent of interest in developing a statewide power use program and in holding an organi-

zation meeting.

UTAH: A meeting was scheduled to put into effect recommendations from the Denver meeting. Those named to the steering committee are: W. A. Huckins, Salt Lake City, representing electric companies; Reed Burr, Richfield, representing electric cooperatives; and S. H. Daines, Extension Service.

VERMONT: Appointment of Walter Cook of Johnson, representing cooperatives, and Ralph J. Bugbee of Rutland, representing electric companies, as members of a steering committee was recommended.

VIRGINIA: The Virginia Farm Electrification Council and the REA cooperatives plan discussions for stepped-up activities largely through facilities of the state council. E. T. Swink, Agricultural Engineering Department, VPI, Blacksburg, will serve in a liaison capacity to the Inter-Industry Council.

WASHINGTON-OREGON-ALAS-KA: Those present from the Pacific Northwest met as a single group at Denver and left to the future the decision on whether to work as a single area or as separate units. Agreement was reached on the need for a dealer information program, for promotion

of adequate household and farmstead wiring, and for a regional power use calendar. Robert B. Smith, Spokane, representing electric cooperatives, reported for the group.

WEST VIRGINIA: Facilities of the existing West Virginia Farm Electrification Council will be used to promote the program of the Inter-Industry Council with Dr. A. D. Longhouse, head, Department of Agricultural Engineering, University of West Virginia, Morgantown, serving in a liaison capacity.

WISCONSIN: Committee formed to fix time and place for a meeting to set up an inter-industry organization. Committee consists of Carl Neitzke, Wisconsin Extension Service, chairman; G. E. Davis, representing Wisconsin Electric Cooperative; A. J. Von Burg, representing electric companies.

WYOMING: After agreeing on an appliance survey in the State, the group selected the following steering committee: W. B. Petch, Cheyenne, representing electric companies; Richard C. Anderson, Aurora, Colo., representing manufacturers; Kermit R. Brown, Casper, for distributors; W. T. Kirk, Extension Service; and Virgil E. Estep, Basin, representing rural electric cooperatives.

Hazel Brings Offer of Help

"CAN FURNISH EMERGENCY CREW FOR HURRICANE AREA IF NEEDED."

That was the word H. H. Hilburn, manager of the Piedmont Rural Telephone Cooperative, Laurens, S. Car., wired to the REA Telephone Operations and Loans Division just after Hurricane Hazel raged up the Eastern seaboard.

The offer was relayed by REA to companies suffering storm damage, but the distance involved prevented its acceptance.

REA, in acknowledging the generous offer, replied that the spirit of the manager and crew typifies the service which telephone companies gave the public.

REA, Co-op Leaders Discuss Atomic Energy with AEC Staff



The Chairman, General Manager, and staff members of the Atomic Energy Commission met recently with the Administrator and staff members of the Rural Electrification Administration, the Administrator's policy advisory committee and the committee on atomic energy of the National Rural Electric Cooperative Association.

The REA group pointed out that this agency and its cooperative borrowers wish to follow closely the developing application of atomic energy to economic power production and to make available this new source of electrical energy to the farms of America at the earliest practicable time.

The AEC Chairman, Lewis L. Strauss, and the General Manager, K. D. Nichols, and their associates called attention to the statutory requirements for preference to cooperative users in disposal of power generated by the Commission in its developmental programs, and emphasized their determination to make the knowhow of the new art of nuclear power generation available to cooperatives.

Assurances were given by the Chairman and the General Manager that REA-AEC liaison will be maintained through moves already taken and others which will later develop. It was pointed out that 5 REA staff members had already been cleared for AEC classified information and designated to keep in close touch with power development programs and to inform the administrator and, within the limits of classification, the borrowers on progress made.

The committee on atomic energy representing NRECA at the meeting

reported it has filed with the AEC an application for a power study group agreement similar to that entered into by other industry groups.

Discussion of the current status of nuclear power development brought out the fact that no design for power reactors yet developed promises power costs competitive with conventional plants. In other words, rural electric cooperatives cannot expect to find lower power cost in atomic energy until further development work is completed. This situation can change as study and invention are applied.

General Manager Nichols went over the phases of development now underway-provision and testing in prototype plants of new and more economical designs for power reactors (the financing of the prototypes to be partly public and partly private); development of know-how among suppliers of boilers, fuel assemblies, pumps, etc. through competitive bidding for the building of package power reactors and perhaps of later designs. He pointed out that as a result of this work the cooperatives wishing to build generating plants would eventually have available a supply system and operating knowledge that would enable them to bring this new source of power to their consumers.

The point was made that REA and the cooperatives were not in a position financially to assume part of the costs of development of nuclear power reactors. The cooperatives and REA, however, want to keep in closest touch and gain the widest possible knowledge from the individual development projects now underway for portable and fixed package power plants for the Army and for demonstration

projects trying out other designs for small and medium-sized fixed central station power plants. In the event such plants are constructed of a size suitable for rural electrification, REA requested that consideration be given to their location in REA areas.

Chairman Strauss reiterated his desire to see that the REA program benefits from atomic power development as costs make this practical.

Subsequent consultations are to be held between the REA staff, the AEC staff and the cooperatives. A continued flow of information from the findings of the development projects in order to keep rural electrification interests fully acquainted with the progress of the technology and the prospects of economic nuclear power was assured.

Those attending the meeting included:

For REA: Ancher Nelsen, Administrator; Roy G. Zook, Assistant Administrator; K. Wilde Blackburn, Associate Solicitor; J. E. O'Brien, Chief, Electric Engineering Division; and Robert D. Partridge, Program Analyst.

For the AEC: Lewis L. Strauss, Chairman; K. D. Nichols, General Manager; Alfonso Tammaro, Assistant General Manager; Kenneth Davis, Assistant Director, and Charles Manley, Deputy Assistant Director of Reactor Development.

FOR REA ADMINISTRATOR'S POLICY ADVISORY COMMITTEE: Edgar D. Beach, Maquoketa Valley Rural Electric Cooperative, Anamosa, Iowa; T. E. Craddock, B-K Electric Cooperative, Seymour, Texas; Paul DeBolt, Ohio Rural Electric Cooperative, Fredericktown, Ohio;



Lewis L. Strauss, left, Chairman of the Atomic Energy Commission, discusses nuclear power developments with Ancher Nelsen, Administrator, REA; T. E. Craddock of Texas, representing the Administrator's policy advisory committee; and W. Gordon Loveless of Vermont, representing atomic energy committee of the National Rural Electric Cooperative Association.

Andrew L. Freeman, Minnkota Power Cooperative, Grand Forks, North Dakota; U. J. Gajan, Southwest Louisiana Electric Membership Corp., Lafayette, Louisiana; John George, Clearwater Valley Light and Power Association, Lewiston, Idaho; Floyd Jones, Gibson County Electric Membership Corporation, Trenton, Tennessee; Oliver Kimbrough, Farmers Electric Cooperative, Clovis, New Mexico; W. Gordon Loveless, Washington Electric Cooperative, East Montpelier, Vermont; John Madgett, Dairyland Power Cooperative, La-Crosse, Wisconsin; Howard McKee, Steele-Waseca Cooperative Electric, Owatonna, Minnesota; Harry H. Nuttle, Choptank Electric Cooperative, Denton, Maryland; Gwyn Price, North Carolina Rural Electric Authority. Raleigh, North Carolina; Clyde H. Seybold, Parke County Rural Electric

Membership Corporation, Rockville, Indiana; J. E. Smith, Mecklenburg Electric Cooperative, Chase City, Virginia; Elton Trowbridge, Carbon Power and Light, Saratoga, Wyoming; and J. O. Cagle, Pearl River Electric Cooperative, Columbia, Miss.

FOR THE NRECA COMMITTEE ON ATOMIC ENERGY: Messrs. Loveless, Madgett and Smith, of the Advisory Committee listed above are also members of this group; also Henry Hope, Cornbelt Power Cooperative, Humboldt, Iowa; Ed Wolters, Rural Cooperative Power Association, Elk River, Minn.; Norton Davis, Plains Electric Generation and Transmission Cooperative, Albuquerque, N. M.; Clyde T. Ellis, Executive Manager, National Rural Electric Cooperative Association, and Charles Fain, NRECA staff.

Flying Saucers-Not Quite!

(John Jordan, lineman for the Clay ElectricCooperative, Inc., Keystone Heights, Fla., wrote this account of an experience near Alachua, Fla.)

Early Sunday morning, I received a trouble call by phone from Raattamas Dairy, informing me that their lights were out. . . . I left immediately . . . as I knew the dairy was in bad need of electricity. I went to the switch on that line and found that it was out. I climbed the pole and threw the switch in. There was a groaning-like sound as if the line might be overloaded or something was wrong on the line. . . . I had gone about $2\frac{1}{2}$ miles when my spotlight came across something in the air. It was still dark in the sky and also quite foggy and I could not make out what it was. I began to think about flying saucers, and although I had never really believed such things, I was beginning to think that I had found one.

. . . Watching it carefully for about 5 minutes, I noticed that it would come toward me and then all of a sudden go back the other way again,

and then . . . just hover in one spot.

I went to the nearest house, which was the home of Maxwell Davis, and called him to come and see this "Thing" . . . We went out in the field and found that it had wire tied on it that we couldn't see from the road. . . . We got hold of this wire and began to pull the thing down and found out that it was 3 huge red balloons. There had originally been 4 of them but 1 had busted. The wire . . . had caught in our power line and wrapped around the primary and neutral wire and when I threw the switch in, it burned the wire in two. . . . Where these balloons came from, what they were for, I don't know.

December 1954

Onno V. Beaver, manager Clearwater-Polk Electric Cooperative, Bagley, Minn., says: "One of the things that makes working with the rural public interesting is that they have ingenious ways of meeting their problems. Actually astonishing are two devices we had an opportunity to view last week. And they work as good as anything in their line we have seen.

"Down by Alida, consumer Roy Wallin was faced by the problem of having a tremendous amount of hard digging to do to provide running water in his house and barn. Roy, who is an expert with a welder, decided to build himself a ditch digging machine.

"Built around his tractor with its hydraulic lift, the digger is of the shovel type with a reverse bucket, the open end toward the tractor. Its operation is completely controlled from the tractor operator's seat. Even in heavy clay soil with rocks fairly abundant the digging proceeded smoothly and rapidly. The resulting ditch was about 20 inches wide (the width of the bucket) with straight walls, a very neat job. At the time we watched the operation he was ditching about 7 feet deep.

"The other machine we had in mind was a type of cloth mill of the kind used to clean wild oats out of oats and designed and built in this

case by Orin Torgerson.

"He improved on those he had seen by making this one a double cloth type. It does in one operation what others did in two. It is an intricate



POWE EXCH



machine with pulleys and concentric wheels that cause the screens to elevate and shake at the same time.

"All of which proves what we always say, you can't beat a farmer when it comes to being ingenious."

James F. Coleman, manager, Nodak Electric Cooperative, Grand Forks, N. Dak.: "How many people saw the new tractor-mounted generators on display at the fairs this year? Practically every machinery manufacturer predicts a revolutionary change in mechanized farming within the next ten years. Experimental models of every conceivable type of farm machinery powered with electric motors are already being field tested and will be in common use within the next 5 years. Two different types are being experimented with one the 120-volt AC system and the other is the 40-volt DC system. The advantages of electrically powered combines, balers, and potato and beet machinery are very apparent with a little imagination. Rapid adjustment of the remotely controlled piece of machinery by simply turning a rheostat will return the cost a thousand fold. Both systems are being planned so that the tractor-mounted generator can also provide standby power for the farm in case of power failures."

G. Leslie Rucker, manager, Edgecombe-Martin Electric Member-

USE NGE



ship Corporation, Tarboro, N. C., says, "Our members have tripled their use of electricity on the farm in the last 10 years and the average kwh consumption is still rising.

"Since 1944 each farm home has increased its average kwh used from 42 to 125 kwh per month. A tabulation of the recently conducted appliance survey shows that at present 3 out of every 4 members have electric refrigerators, over one-half have washing machines, 1 out of 6 have TV sets, 1 of every 5 have water pumps, 4 out of 5 have electric irons, 1 out of 10 has an electric water heater.

"By next year these averages will be still higher. For instance, 4 of 5 members will own refrigerators, 9 of 10 will have irons, 1 of 8 will own ranges, 1 of 10 will heat water electrically and 1 of every 4 homes will have TV and water systems. This is just the beginning."



A. C. Barnes, manager, M. J. M. Electric Cooperative, Carlinsville, Ill., says, "The storage of grain on our farms continues to be a primary in-

terest as a means of bolstering farm income. Grain stored on the farm last year, in many cases paid for the cost of the storage facilities. We have talked with several members who are interested in building a central granary with overhead bins and storage for ear corn on the side. We have yet to see a better granary of this type than the one on the Dan Lewey farm operated by Lewey and his son Kenneth, southwest of Hillsboro."

Charles M. Stewart, manager, Warren Rural Electric Corporation, Bowling Green, Ky. "In the 12 months ending June 30, members used nearly 44 million kilowatt-hours of electric power, an increase of 20 percent over the previous year.

"The figures are impressive but to get the whole story, you should translate these millions of kwh into the thousands of ways that electricity helped people live better, work better and increase their incomes.

"The use of electricity is one good way to judge the progress of an area. In our territory the use of electric power is at an all-time high. Today 7 percent of our rural consumers use more than 500 kwh a month."

"Wiring Is at Fault but the Appliance Gets the Blame" is an excellent cartoon presentation on the "old octopus" type of house wiring. It is the symbol of blown fuses, electrical inconvenience and hazardous electric conditions. The appliance is not to blame, but it may be necessary to install a larger service entrance, more circuits with larger wires and more outlets. It is 24 pages. Published by the National Electric Products Corporation, Pittsburgh 22, Pa.



If your rural electric system has the problem of increasing the sales of kwh, you may want to know how the Blue Ridge Electric Membership Corporation, with headquarters at Lenoir, N. C., met the same challenge.

When C.H. Viverette took over as manager of the cooperative in 1948 some 50 percent of the 12,000 consumers on the lines were minimum bill users. And this despite the fact that the system had used around \$250,000 in Section 5 consumer loans to encourage the installation of appliances.

Viverette and the co-op board decided that it was time to take stock of the situation and make plans for the future. A projection of anticipated revenue and estimated expenses made it appear that unless an aggressive power use campaign was undertaken it would be at least 1960 before the co-op would have a reasonable assurance of financial stability.

What the board and manager decided to do was to get the 1960 position by 1954.

It takes people to make a power use program go and Viverette has continued to build his staff. He now employs a power use adviser, 2 home economists, and 2 assistants.

The whole power use program was geared to dealer cooperation and the selective use of Section 5 loans to back up key promotions.

It took only a casual survey to show that farmers needed refrigerators more than anything else and that the refrigerator load was worth the effort. The power use staff went into a series of meetings with dealers and their sales staffs. Names and addresses of members were supplied to all dealers and the details of the Section 5 loans explained.

The results were startling. Newsletter promotion, dealer advertising and personal calls by dealers brought quick results. Section 5 loans in 1950 were averaging around \$45,000 a month but it was not Section 5 alone which was doing the job. Many consumers paid cash and a number of dealers arranged financing through their own sources. The effect of the Section 5 plan was to stimulate effort by dealers and distributors.

From the co-op standpoint results were quickly apparent. In one county, the number of minimum bills was reduced by 60 in a single month.

Section 5 loans have been made to more than 2,600 members since 1950 in the amount of over half a million dollars. Some 1,300 refrigerators and 325 electric ranges have been purchased through the co-op financing plan. Since 1948 not one penny has been lost from member loans.

Of 13,190 farm and residential



Mr. C. H. Viverette, Manager, Blue Ridge Electric Co-op.



Grade A Dairy farm of Mr. and Mrs. Gwyn B. Price, Ashe County, served by Blue Ridge Electric Co-op.

consumers, 10,489 now have refrigerators.

Manager Viverette is emphatic in pointing out that Section 5 loans were not the only factor in the power use program. He feels that co-op financing serves to develop dealer interest and to stimulate dealers to work up financing plans of their own.

The co-op continues to promote refrigerators but is branching out now to put more emphasis on electric ranges and water systems. Dealers are encouraged to offer specials in any type of electric appliances. In such cases, the co-op gives free distribution to dealer handbills on a full system or county plan.

Viverette is a strong believer in meetings and demonstrations. Some 200 adequate wiring meetings for dealers, electricians and members have been held in the past 2 years. The wiring demonstrations are also held for civic clubs, home demonstration clubs, 4-H, Future Farmers, and for all the junior-senior high school classes in the system areas.

Backing up the demonstration meetings are 60 community meetings a year among co-op members. These

are held in all parts of the system area and where possible are limited to 40 to 50 people. Viverette finds that small groups are more responsive and are not so shy in asking questions.

The nature of the power use program of the co-op was pretty well determined by the nature of the system. Most farms on the co-op lines are in the valleys or plateaus of the Blue Ridge Mountains. Many farms are at 4,000 feet elevations on the plateaus and many are dominated by peaks reaching to 6,000 feet.

Farming generally is on mediumsized farms and is of a diversified type. Small tobacco acreage is the principal cash crop. In only one county is there extensive dairying. Farm income while steady is in no way comparable to the corn-hog standards of middle western states.

Manager Viverette got to his 1960 goal in 1954. It took a planned power use campaign, dealer cooperation and a lot of hard work to do it. The half million dollars in consumer loans since 1950 helped. Newly awakened dealer interest did the rest.

Average kwh consumption rose from 72 in 1940 to 163 in 1954.

December 1954



The appliance survey conducted by the Montana Rural Electric News showed us that statewide publications can provide a valuable service to subscribing co-ops by digging into the future needs on appliances.

It not only tells a big story to appliance manufacturers, but also enables the individual co-ops to study their power load needs of the future.

Our survey of the more than 26,000 rural electric co-op members showed that millions of dollars in appliance sales await manufacturers, distributors and dealers throughout Montana.

The original survey was compiled with care and listed 84 items, divided into "inside the house" and "outside" categories. The blanks had 2 divisions listing the appliances. One was "We now have" and the other was "May have within a year." This gave both a present and future answer to needs.



Virgil Cory, Editor, Montana Rural Electric News

Nearly 5,000 farm families took the time to fill out and mail, at their own postage expense, the survey blank printed in the paper in two issues, April and May, 1954. Total circulation of the statewide publication, owned by the Montana State Rural Electric Association, is 26,000 copies monthly.

The paper tied in with the Midland Implement Company, Montana distributors of appliances and farm implements. When the blanks were received from us, Midland sent each family replying in the survey, a gift certificate entitling them to go to its nearest dealer and pick up the frozen food saw. The name of the nearest dealer was listed on the gift certificate.

All survey blanks in turn were grouped by co-ops and each co-op received all the blanks from the families it served. This enabled the Montana co-ops to make their own studies of appliance needs and demand in their areas.

Some astounding figures came out of the survey. Nearly 12 percent of the families reading our paper may purchase a reach-in freezer within the year. This is nearly a million dollars' worth of business. Ten percent showed that they need and will buy a water system within the year. Desire to buy was indicated in all 84 items listed, from small percentages up to 12.23 percent, who expect to buy an electric water heater some time soon.

Yes, we found that our statewide survey was a big help to our co-ops, and to dealers and distributors, too.

THE LINEMAN

Highlights of National Conference

Florida Meeting Draws 250

Training and Safety Leaders

With the white-capped, blue-green breakers of the Atlantic playing a sound accompaniment outside the conference picture windows, delegates to the 14th annual National Rural Electric Job Training and Safety Conference held their most recent conference at Daytona Beach, Florida.

Conference highlights included:

- (1) Selection of Minneapolis, Minn., as the 1955 conference city around the first week in October;
- (2) Naming of John Lane, Stillwater, Okla., as Chairman of the 1955 conference committee;
- (3) Selection of Thomas Finley of Minnesota as host chairman for 1955;
- (4) A general conclusion that the conference was one of the most successful in the history of the organization.

Registration at the conference ran to around 250 persons and included job training and safety instructors, line foremen, managers, directors and REA personnel.

Probably the most impressive accomplishments of the conference came in the afternoon workshops. Subject matter of the workshops included:

(1) Conference Leadership Training,

(2) Instructor Training to Provide Continuity of Employee Training in Local Cooperatives, (3) Planning and Making Practical Teaching Aids, and (4) Unifying Instructional Material.

Conferees were generous in their expression of appreciation of the aids extended at the workshop and numerous comments were made as to the value of new information developed by those who had planned the conference.



John Lane, Chairman, National Conference Committee on Job Training and Safety

Wayne Black, Florida Job Training and Safety Instructor, who was the host chairman of the Daytona Conference, saves lives during the week days and saves souls on Sundays. When Wayne travels around on Florida Co-op lines he moves right along with the line crews. When a question comes up as to how to do it right, Wayne pulls out his spurs and goes right up the pole to demonstrate. On Sundays he occupies a pulpit in his home town church.

Pioneer in Rural Electrification

At the age of 84, neighborly, community-minded Harry Edmunds of Cedar, Minn., is a good example of the saying that a busy man gets things done.

Since 1937 he has headed the Anoka County Cooperative Light and Power Association, as well as having a lot to do with the development of agriculture and rural electrification in his county and State.

Mr. Edmunds was born and educated near Fareham, England. Except for a brief spell as a Canadian homesteader, he has spent most of his life as a Minnesota farmer. From the start he has taken a keen interest in the doings of his new country. You wouldn't think one person could do so many things in a lifetime.

On the rural power front, he is currently rounding out his thirteenth year as president of the Minnesota Electric Cooperative. He is credited with pioneering the present Safety and Job Training Program of this group. He was first president of the Rural Cooperative Power Association at Elk River, Minn.

For some 11 years Mr. Edmunds was a director of Region VI of the National Rural Electric Cooperative Association, and was one of the original incorporators of the Association.

Recognition has come to him from



Mr. Edmunds

his State government by his appointment to the Minnesota Board of Electricity. A booklet he authored, "Is Your Wiring System Adequate?", has been widely read over the country.

He organized and headed up various farm groups long before he helped set up the Anoka County electric coop, including the Cedar Cooperative Livestock Shipping Association and Farmers Cooperative Warehouse. He is a past director of the Twin Cities Milk Producers Association.

Not long ago one of Mr. Edmunds co-workers said:

"Mr. Edmunds' friends know him as a man of high character, one blessed with the knack of making things go. They know him too as one with real love for his fellowmen. He's the kind of fellow who brings good to a community."

Lights for Egg Profits

How to make an extra profit on eggs in the fall and winter months by using electric lights in poultry houses is told in Leaflet No. 377, "Lights For More Winter Eggs," published in November by the Agricultural Research Service, U. S. Department of Agriculture.

Copies may be obtained from agricultural extension agents, the United States Department of Agriculture, Washington 25, D. C., or at 5 cents each from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Independent Sums Up Gains

Washington State Company Cites Progress in Conversion to Dial

"REA has been a big help to small independent telephone companies operating in rural areas."

That is the way G. J. Stover, president of the Skagit Valley Telephone Company, Mt. Vernon, Wash., and a former president of the Washington Independent Telephone Association, sums up the value of REA's part in modernizing and improving rural telephone service.

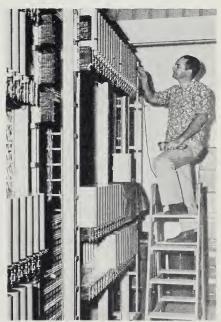
Says Mr. Stover, "Up to 1951 when we got our \$945,000 REA loan and swung into our modernizing program, things looked pretty dark for dial phones. We figured farmers would have to keep on putting up with the manual system."

Mount Vernon Rural, one of the company's exchanges, cut over to dial service on October 11, and more dial service is on the way. Only the installation of 2 new dial exchanges at Belfast and Marblemount, and installation of larger units for the Big Lake, Conway and La Conner exchanges remain to be done before most of Skagit Valley's rural subscribers will be on dial.

Skagit Valley farmers say installation of the REA-financed dial system and general rehabilitation of the company's facilities isn't coming too soon. Their county, one of the State's richest agriculturally, is making all-around growth. It is also experiencing the growing pains of new industrial development. Sample—the new \$26 million Shell Oil refinery under construc-

tion near Mount Vernon which will have a payroll of 500 workers. Business for farmers generally has been good and there are signs that even better times are ahead.

Skagit had only a few subscribers on its rolls when it organized as a farmer-line company in 1902. Customer service had expanded somewhat by 1914 when farmers incorporated and formed a mutual company. In 1933 the company announced a third change in control which discontinued sale of stock to subscribers and put new telephones on a rental basis.



Marvin Goche, Mount Vernon equipment employee, checks selectors.

In 1935 the company purchased controlling interest in Skagit River Telephone Company which operated exchanges at Concrete and Hamilton.

Before getting its REA loan, the company obtained money through bond issues but each time the sum was insufficient to complete new projects and keep up with the demand for service. Since 1914 the number of subscribers has doubled every 10 years.

Skagit has been putting its REA loan to good use. A new, 2-story concrete building adjacent to the old telephone office in Mount Vernon houses the new dial system and the billing staff. Old bond issues have been retired. Service has been extended to some 2400 new subscribers, and 600 applications for service are on file.

Exchanges at Mount Vernon, La Conner, Big Lake, Conway, Burlington, Edison, Sedro-Woolley, Lyman, and Concrete, plus 2 under construction at Belfast and Marblemount give extended area service to surrounding areas. The company is set for toll dialing.

Cutting in of the dial system is the realization of a long-standing goal. Like other rural telephone users the company's 5700 farmer-subscribers are happy to turn in their old "windup" phones for handy, modern dial sets. They see the end of long delays and hit or miss calling when the "barn's burning." Service from now



Mrs. Alice Hull gladly exchanges her 1900 phone for a new dial set.

on will be speedier, and telephoning will be easier and more enjoyable.

Skagit will use its second REA loan for extending service to additional subscribers not covered under the initial development program.

Skagit has 94 employees and a monthly payroll of more than \$26,-000. The company works cooperatively with West Coast Telephone Company and Pacific Telephone and Telegraph Company in the interchange of lines and services.

Mr. Stover says, "We're 100 percent sold on the rural telephone program. We have had the finest kind of cooperation and service from REA."

WHAT'S NEWS

"Let a Motor Do It" is the title of single sheet published by Westinghouse describing the jobs which different types of motors can handle. Nameplate is key to many questions. Instructions are included as to how to reverse a motor and how to determine the proper sizes of pulleys, belts and speeds. Copies are available through Farm Youth Activities Information Services Department, Westinghouse Electric Corp., P. O. Box 2278, Pittsburgh 30, Penn.

Tests which showed that the average per acre yield of feedable hay was 1.77 tons by barn-curing and 1.57 tons by sun-curing are reported in **Vermont Bulletin 574**, "Comparison of Sun-Cured and Barn-Cured Hay from the Same Field." The barncuring method retained markedly more carotene than did the sun-curing. Written by O. M. Camburn and C. H. Jones, the bulletin is available from the College of Agriculture, University of Vermont, Burlington, Vt.

Florida Gets Top Loan

The largest telephone loan now on REA books, \$3,602,000, was approved to the North Florida Telephone Company, Live Oak, Fla., on September 30, 1954.

The borrower, a new commercial company, is planning a modern telephone system to serve more than 7,200 subscribers, including some 4,000 now without service, over 1,840 miles of line.

The company will use its own funds, plus loan money from REA, to acquire from the Florida Telephone Corporation 7 magneto, 1 common battery and 2 dial exchanges which serve 3,180 subscribers over 450 miles of line.

The REA loan will be used to improve and convert these facilities to full dial operation, add 1,400 miles

of new line and integrate 330 miles of the existing line into the new system. About 100 miles of line will be rebuilt, and 3 dial central offices and other facilities added to furnish new and improved service in the operating territory. This will include Alachua, Columbia, Hamilton, Lafayette, Putnam, St. Johns, Suwannee, Union, Gilchrist and Bradford.

There will be 3 dial offices, located at: Crescent City, Hastings, High Springs, Jasper, Lake Butler, Mayo, White Springs, Alachua, Branford, Ft. White, Jennings, Live Oak and Wellborn. The Live Oak exchange will provide toll service for 6 of the other exchange areas. Service without additional charge for toll will be available between some of the central offices.

Northwestern Bell System States Extended Area Service Terms

Borrowers in the area served by the Northwestern Bell Telephone Company will be interested in the Company's announcement relating to extended area service between its exchanges and exchanges of connecting independent companies.

Under the new agreement, recognition is given to the fact that where the exchanges are approximately equal in size the service should be provided on a 50-50 basis, with each providing its own switching equipment and one-half the EAS trunks.

A second category is established where the smaller exchange contains from 30 to 45 percent of the stations in the EAS service area. Then the larger exchange provides for one-quarter of the EAS trunks or the

trunks to its exchange boundary, whichever is less. Where the smaller exchange contains less than 30 percent of the stations in the EAS service area, it must provide the EAS trunks to the base rate area boundary of the larger exchange.

This basis of settlement will be more advantageous than previous agreements to many REA borrowers and at least as good as previous agreements in all cases. Existing agreements between REA borrowers and the Northwestern Bell Telephone Company have been negotiated on an individual basis. Generally, they required that the REA borrower provide its own switching equipment and the inter-exchange EAS trunks.

So you want to get out a . . .

Telephone Directory



Are you confronted with the prospect of getting out a telephone directory for your subscribers? Are you wondering who will do it and how?

The DeKalb Telephone Cooperative, Alexandria, Tenn., has just issued its directory and done it with a minimum of outside help.

Co-op Manager E. D. Hildreth and all of the co-op employees pitched in to get the job done. The only outside work was the commercial printing which was done by the publisher of the county paper.

The manager sold the advertising space himself, compiled the ads in rough draft and submitted his copy to the printer. Odd spaces in the yellow section were filled with useful helps, including tips on using the yellow section and telephone manners, as well as a handy calendar.

The first 5 inside pages supply essential telephone information, including emergency call numbers, service call numbers, how to use the dial phone, how to call long distance, and so on. This information was compiled from various sources, including material supplied by the manufacturer of central office equipment.

This section also has a statement on the cooperative itself, how it functions and the responsibilities of members as owners.

Employees of the co-op compiled the listings, and proof-read and corrected all copy. Every precaution was taken to avoid errors in names, addresses or numbers.

The cover carries the REA symbol of quality service and the names and addresses of the 3 exchanges, with the communities each serves.

Twin Lakes Co-op Shows Progress in Newsletter

The PROGRESS REPORTER, published by the Twin Lakes Telephone Cooperative Corp., Gainesboro, Tenn., is a lively 4-page letter to members. It is sent out monthly to keep members informed of progress of their telephone system. It does this effectively through plentiful use of photographs. For instance, one picture in the September issue showed the staking crew at work, others showed the old and the new in telephones.

A Letter from the President

THE WHITE HOUSE WASHINGTON

> Denver, Colorado September 28, 1954

I understand that some people are busily circulating statements to the effect that this Administration is opposed to rural electri-Dear Ancher: fication programs and that these programs are to be drastically curtailed in the coming fiscal year. I am sure you recognize, as I do, that this is part of a general fear psychology now being adroitly generated in many fields by people who evidently have ends to serve that they consider more important than the truth. I am convinced that our rural population will not be misled by such reckless and irresponsible statements.

For the record I should like to emphasize certain facts. During the past year the progress of the REA has been exceptional. Our rural people know it. This progress has been evidenced in this past fiscal year by your speedier handling of loan applications. This will bring electric power to 170,000 additional farm families almost 10,000 more than in fiscal year 1953 and 33,000 more than amost 10,000 more than in riscal year 1953 and 35,000 more than in fiscal year 1952. During the past fiscal year almost \$75,000,000 in telephone loss. in telephone loans were made as compared with \$41,000,000 during the previous fiscal year. The fact is that the backlog of both types of loan applications has been reduced to the lowest point since 1947. Moreover, industry cooperation in these programs, which you have initiated, has already reduced the cost of electric power to farmers in large areas and markedly facilitated the extension of telephone service. Because these jobs in this past fiscal year were done at a substantial saving in administrative cost, the accomplishment is

I want to make this clear: The Administration considers these REA even more impressive. rwant to make this clear. The Auministration considers these the programs great advances for rural America. They have made our farms more productive; they have greatly enriched the lives of our rural families; and they have served as a powerful stimulus to our country's economy. We shall completely meet next year's financing

It is our determination that these programs shall fully accomplish needs for these programs. their purposes. We shall continue to give them our wholehearted support.

Dwight Vasen kon

The Honorable Ancher Nelsen Rural Electrification Administration Washington, D. C.

UNITED STATES GOVERNMENT PRINTING OFFICE PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, \$300

DIVISION OF PUBLIC DOCUMENTS

WASHINGTON 25, D. C.

OFFICIAL BUSINESS

LOANS APPROVED SEPTEMBER 24, 1954 THROUGH OCTOBER 23, 1954

	FICATION	260,000	Belmont Electric Co- operative, St. Clairsville, Ohio.
	Choptank Electric Co- operative, Denton, Md.	240,000	Top O'Michigan Rural Electric Company, Boyne City, Mich.
885,000	Clay County Electric Cooperative Corp., Corning, Ark.	TELEPHO	
72,000	Pierce-Pepin Electric Cooperative, Ellsworth, Wis.	\$ 886,000	Twin County Rural Telephone Co-op. Corp., Hodgenville, Ky.
233,000	Continental Divide Electric Cooperative, Grants, N. M.	40,000	Yadkin Valley Tele- phone Membership Corp.,
610,000	Singing River Electric Power Association, Lucedale, Miss.	444,000	Yadkinville, N. C. The S & T Telephone Cooperative Assoc., Goodland, Kans.
100,000	Pioneer Electric Co-op., Greenville, Ala.	223,000	Utelwico, Inc. Talbotton, Ga.
235,000	Okefenoke Rural Electric Membership Corp. Nahunta, Ga.	595,000	Crow Wing Cooperative Rural Telephone Co., Brainerd, Minn.
1,155,000	Lea County Electric Cooperative, Lovington, N. M.	3,602,000	North Florida Telephone Company, Live Oak, Fla.
285,000	San Miguel Power Association,	ŕ	Sound Telephone Co., Lakebay, Wash. Winnebago Cooperative
269,000	Nucla, Colo. Wright County Rural	201,000	Telephone Assoc., Thompson, Iowa.
	Electric Cooperative, Clarion, Iowa.	488,000	Blackfoot Telephone Cooperative Assoc.,
207,000	Red River Valley Co- operative Power Assoc., Halstad, Minn.	264,000	Missoula, Mont. Roberts County Farmers Co-op. Telephone Co.
50,000	Sheyenne Valley Electric Cooperative, Finley, N. Dak,	124,000	New Effington, S. Dak. Gem State Utilities Corporation,
465,000	Grand Electric Co- operative, Bison, S. Dak.	607,000	Richfield, Idaho. The Rainbow Telephone Cooperative Assoc., Everest, Kans.
220,000	Raft River Rural Electric Cooperative, Malta, Idaho.	12,000	Cherokee Telephone Membership Corp., Banner Elk, N. C.
755,000	Illinois Valley Electric Cooperative, Princeton, Ill.	1,567,000	Reservation Mutual Aid Telephone Corp., Parshall, N. Dak.